Minutes of Meeting

Alabama Medicaid Agency
Pharmacy and Therapeutics Committee

May 9, 2007

Attendees: Chairman Dr. W. Thomas Geary Jr., Ms. Sheri Lynn Boston, Dr. Lucy Culpepper, Dr. Nan Ferris, Dr. Richard Freeman, Dr. James Gagnon, Dr. A. Z. Holloway, Ms. Vicki Little Faulk, Ms. Kelli Littlejohn, Mr. Ben Main, Dr. John Searcy, and Dr. Marie Wenzel

Absent: Dr. Lucian Newman III and Dr. Joseph Thomas

1. **OPENING REMARKS**
   Chairman Geary called the Pharmacy and Therapeutics (P&T) Committee Meeting to order at 9:00 a.m.

2. **APPROVAL OF MINUTES**
   Chairman Geary asked if there were any corrections to the minutes from the February 7, 2007 P&T Committee Meeting. Since there were no corrections, a motion was made and seconded to approve the minutes.

3. **PHARMACY PROGRAM UPDATE**
   Ms. Littlejohn announced that the Preferred Drug List (PDL) quarterly update was implemented on April 2, 2007 and an ALERT, which can be found in the members' packet, was sent to providers.

   The implementation of the new Medicaid Management Information System (MMIS) has been postponed from May 23, 2007 to September 17, 2007. An ALERT was sent to providers informing them to continue using the current methods and provider numbers until the new implementation date. This rescheduling will allow for additional testing of the new system. Provider training will also be held throughout the state prior to the new system implementation.

   On January 25, 2007, Alabama Medicaid was awarded a $7.6 million federal transformation grant called "Together for Quality" (TFQ) to support the Agency's efforts to transform the state's process-oriented system into one that is coordinated, patient-centered, and cost efficient. Ms. Littlejohn extended an invitation to the members of the P&T Committee to attend a Together for Quality Stakeholder Council Meeting later that afternoon. A printout from the Agency's website is included in the P&T Committee Members' packet that outlines how to be included in the TFQ list serve. Information was also included concerning the clinical workgroup which is held regularly with call-in access. Participation from the board is welcomed.

   A moment was taken to review a few standard procedures for the manufacturer's submission of comments and clinical information. Ms. Littlejohn read from the certified mailing to manufacturers regarding the May P&T Committee Meeting. The portion of letter (sent 45 days prior to the May P&T Committee Meeting) read to the audience re-emphasized critical dates and policies regarding submissions of clinical content. It was also noted that this letter as well as a timeline is posted on the Agency's web site. It is important that the Agency has the most updated contact information for the manufacturers. There is a

Manufacturer Contact Form available at the sign in table and on the Agency's web site. It is the responsibility of the manufacturer to update this information and submit it to the Agency to ensure they will receive the manufacturer's notice that is sent out prior to the P&T Committee Meeting. There is also a tentative meeting schedule on the Agency's web site up to the year 2009, giving everyone extended preparation time. Manufacturers are urged to check the web site for all policies, dates of upcoming meetings, and tentative agendas for each meeting, and submit any written or oral submissions prior to deadlines.

4. **ORAL PRESENTATIONS BY MANUFACTURERS/MANUFACTURERS' REPRESENTATIVES**
Five-minute verbal presentations were made on behalf of some pharmaceutical manufacturers. Ms. Littlejohn explained the process and timing system for the manufacturers' oral presentations. The drugs and corresponding manufacturers are listed below with the appropriate therapeutic class. There were a total of four manufacturers' verbal presentations at the meeting.

5. **PHARMACOTHERAPY CLASS REVIEWS (Please refer to the website for full text reviews.)**
The pharmacotherapy reviews began at approximately 9:15 a.m.

Anthelmintics American Hospital Formulary Service (AHFS) 080800
Manufacturer comments on behalf of these products:
None

Dr. Ferris began her presentation by stating that the anthelmintics were last reviewed in October of 2004. Since the previous review, there have been no new brand products or generic entities added to the market. Mebendazole and pyrantel pamoate are available generically and pyrantel pamoate is available over the counter (OTC). These generic and OTC formulations are on the Alabama Medicaid Preferred Drug List, along with one other branded product.

Dr. Ferris noted that a paragraph similar to the one in the anthelmintics review was in all of the reviews for the antimicrobial agents. The paragraph read "The anthelmintics have been shown to be active against the strains of organisms indicated in Table 2. This activity has been demonstrated in clinical infections and is represented by the Food and Drug Administration (FDA)-approved indications for the anthelmintics. These agents may also have been found to show activity to other organisms in vitro; however, the clinical significance of this is unknown since their safety and efficacy in treating clinical infections due to these organisms have not been established in adequate and well-controlled trials. Although empiric antiparasitic therapy may be initiated before diagnostic test results are known, once results become available, appropriate therapy should be selected." Albendazole or mebendazole is considered a treatment of choice for the most common helminthic infections found in the United States (US), which are the hookworm, roundworm, pinworm, and whipworm infections. These recommendations are consistent with those made by the American Academy of Pediatrics (AAP). Also, the AAP considers OTC pyrantel pamoate a treatment of choice for hookworm and pinworm infections. Dr. Ferris also mentioned that albendazole, ivermectin and praziquantel are considered treatments of choice for less common helminthic infections seen in the US.

At recommended doses, the anthelmintics are generally well tolerated. Thiabendazole was associated with more side effects, and its clinical use in the treatment of intestinal nematodes has declined. The results of these clinical trials support the recommendations noted in the current treatment guidelines.

In conclusion, mebendazole and pyrantel pamoate are available generically, and pyrantel pamoate is also available OTC. Mebendazole is FDA approved and considered a drug of choice for the treatment of hookworm, pinworm, roundworm, and whipworm infections, which are the most common helminthic infections seen in the US. Pyrantel pamoate is FDA approved to treat pinworm infections.

Therefore, all brand products within the class reviewed are comparable to each other and to the generics and OTC products in this class and offer no significant clinical advantage over other alternatives in general use. Albendazole, ivermectin and praziquantel are considered first-line therapy for some helminthic infections that are not commonly seen in the US. Therefore, patients with a diagnosis of one of these uncommon helminthic infections should be allowed approval of a brand anthelmintic through the medical justification portion of the prior-authorization process.

No brand anthelmintic is recommended for preferred status. Alabama Medicaid should accept cost proposals from manufacturers to determine cost effective products and possibly designate one or more preferred brands. There were no further discussions on the drugs in this class. Chairman Geary asked the P&T Committee Members to mark their ballots.

Aminoglycosides AHFS 081202
Manufacturer comments on behalf of these products:
None

The aminoglycosides were last reviewed in October of 2004. Dr. Ferris noted that neomycin was available orally and all of the others were available by injection. Tobramycin is also available as an inhalation solution. All of the aminoglycosides are available generically with the exception of Tobi®, the tobramycin inhalation solution. Dr. Ferris pointed out that the aminoglycosides were active against gram-negative and gram-positive bacteria, and *Mycobacterium tuberculosis*. These agents demonstrated synergistic activity against some microorganisms when combined with other antimicrobials.

The aminoglycosides are primarily administered intravenously during hospitalization for the treatment of serious infections, including pulmonary exacerbations of cystic fibrosis, pneumonic plague, other respiratory tract infections, and skin and soft-tissue infections. Inhaled tobramycin is recommended for chronic suppression of *Pseudomonas aeruginosa* in patients with cystic fibrosis.

There is no major difference in adverse drug events, drug interactions or pharmacokinetics, with the exception of serum concentrations, for these agents. The aminoglycosides carry a black box warning regarding nephrotoxicity and ototoxicity.

In the meta-analysis by Evans et al, which included 42 trials, the aminoglycosides in this review were comparable in efficacy. Several studies reported that inhaled tobramycin solution was associated with improved lung function, improved quality of life, and decreased hospitalizations in cystic fibrosis patients colonized with *P aeruginosa*.

In conclusion, the aminoglycosides are indicated to treat serious infections and are usually administered in combination with other antimicrobial agents. Efficacy of the aminoglycosides is dependent on the indication, susceptibility of the identified organism and serum concentrations of the aminoglycoside.

Gentamicin, tobramycin, and amikacin are considered similar in efficacy for the treatment of susceptible gram-negative organisms. Amikacin may be effective against microorganisms that are resistant to gentamicin or tobramycin.

There is at least one available generic formulation for each aminoglycoside reviewed in this class with the exception of tobramycin inhalation solution, which is only indicated to manage *P aeruginosa* in patients with cystic fibrosis. Since the aminoglycosides are not indicated as first-line therapy for the management of common infectious diseases that would be seen in general use and due to concerns for the development of resistance, therapies with no generic alternatives should be managed through the medical justification portion of the prior-authorization process.

Therefore, all brand products within the class reviewed are comparable to each other and to the generics and OTC products in this class and offer no significant clinical advantage over other alternatives in general use.

No brand aminoglycoside is recommended for preferred status. Alabama Medicaid should accept cost proposals from manufacturers to determine cost effective products and possibly designate one or more preferred brands. There were no further discussions on the agents in this class and Chairman Geary asked the P&T Committee Members to mark their ballots.

Cephalosporins AHFS 081206
Manufacturer comments on behalf of these products:
Spectracef® (cefditoren)-Cornerstone BioPharma, Inc.

Dr. Gagnon began his presentation by stating that the cephalosporins were last reviewed in October of 2004 and that since the last review generic formulations have become available for cefdinir, ceftazidime, ceftriaxone, and the oral suspension formulation of cefprozil and cefpodoxime. These agents are commonly used antibiotics in the ambulatory and hospital setting for both adults and children due to their low toxicity and broad spectrum of activity. There are seventeen different cephalosporins currently available in the United States, and these agents are grouped into "generations" according to spectrum of activity. First and second generation cephalosporins are available as generic products in at least one dosage form. For the third generation agents, cefdinir (a new generic approved since the completion of the clinical packet), cefotaxime, cefpodoxime, ceftazidime, and ceftriaxone are available generically. Cefepime, the only fourth generation cephalosporin, is available as brand only. A few brand name products are also included on the Alabama Medicaid Preferred Drug List.

Dr. Gagnon noted that current treatment guidelines recommend certain cephalosporins as first-line monotherapy for various infections and that parenteral formulations of cephalosporins are generally recommended for more serious conditions or when oral administration is not an option. Oral therapy is recommended for mild-to-moderate infections or as transitional therapy once a patient has been stabilized for a serious condition using parenteral therapy. In general, cephalosporins are the treatment of choice for patients who are allergic to penicillin but do not manifest an immediate-type hypersensitivity to β-lactam antibiotics. Dr. Gagnon noted that all commonly referenced cephalosporins in the national and international guidelines are available generically and guidelines do not normally differentiate between individual cephalosporins within a specific generation.

The clinical studies evaluating the efficacy of the cephalosporins were discussed. A majority of the studies have shown comparable efficacy in clinical cure and microbiological eradication for certain cephalosporins when compared for the treatment of uncomplicated urinary tract infections, skin and soft-tissue infections, upper and lower respiratory tract infections, antibiotic prophylaxis to prevent infections during surgery, and the treatment of febrile neutropenia. There are several studies which show improved clinical efficacy of one cephalosporin over another in the treatment of certain infections, but they represent a minority in the literature. Not all cephalosporins have been directly compared to each other for certain indications. Overall, there is limited and/or inconsistent data supporting differences in clinical and microbiological efficacy of one cephalosporin compared to another for their FDA-approved indications.

In conclusion, with the exception of the fourth generation cephalosporin, each of the other generations has at least one generic agent that is available orally, available parenterally, FDA approved for pediatric patients, and FDA approved for every cephalosporin indication.

Dr. Gagnon reiterated that a review of current national and international guidelines supports the use of these agents as first- or second-line therapy, or in combination with other agents for the treatment of various infections. In general, the guidelines do not differentiate between individual cephalosporins within a specific generation and cephalosporins that are administered via injection are generally used for more serious infections typically requiring hospitalization. Since these agents are not indicated as first-line therapy for the management of common infectious diseases that would be seen in general use and due to concerns for the development of resistance, these agents should be managed through the medical justification portion of the prior-authorization process.

Therefore, all brand products within the class reviewed are comparable to each other and to the generics, within a given cephalosporin generation, and OTC products and offer no significant clinical advantage over other alternatives in general use.

No brand cephalosporin is recommended for preferred status. Alabama Medicaid should accept cost proposals from manufacturers to determine cost effective products and possibly designate one or more preferred brands. There were no further discussions on the drugs in this class. Chairman Geary asked the P&T Committee Members to mark their ballots.

Miscellaneous β-Lactams Single Entity Agents AHFS 081207
Manufacturer comments on behalf of these products:
None

The single entity miscellaneous β-lactams were last reviewed in October of 2004. Dr. Gagnon noted that the class is made up of 5 different agents from 4 different subclasses. The miscellaneous β-lactams are used in the treatment of a wide variety of infectious diseases including dermatological, intra-abdominal, genitourinary, upper and lower respiratory tract, bone, and joint infections, and septicemia. Dr. Gagnon noted loracarbef is the only agent in this class that is available orally, and it is an analog of cefaclor, a second generation cephalosporin. The other agents are available only by injection and are primarily administered in an inpatient setting. Cefoxitin is available generically and in addition to a few brand name products is included on the Alabama Medicaid Preferred Drug List.

Along with other oral β-lactams, loracarbef is indicated to treat a variety of infections; however, the consensus guidelines do not consider it as a first-line therapy. Since the injectable miscellaneous β-lactams are typically administered to patients who require hospitalization, the national and international guidelines state that these agents should be reserved for specific situations, such as the treatment of severe disease, for high-risk individuals, to combat drug-resistant organisms, or in situations where prior therapies were not efficacious.

Clinical studies evaluating the efficacy of the single entity miscellaneous β-lactams for their given indications were presented by Dr. Gagnon. For the treatment of upper respiratory tract infections, loracarbef was shown to be as effective as clarithromycin and penicillin; and in the treatment of urinary tract infections, it was shown to be as effective as cefaclor and norfloxacin. The injectable miscellaneous β-lactams were comparable in efficacy to other monotherapy and/or combination therapy for the treatment of gynecologic, intra-abdominal, respiratory, skin and soft-tissue, and urinary tract infections.

In conclusion, the single entity miscellaneous β-lactams are used in the treatment of various infections and in treating these FDA-approved indications, national and international guidelines state that use of these agents should be reserved for specific situations that were previously outlined.

Dr. Gagnon noted that data from clinical trials demonstrate that the single entity miscellaneous β-lactams are comparable in efficacy and safety to a combination miscellaneous β-lactam antibiotic, as well as other antibiotics in various classes. There are limited clinical studies comparing the agents in the class to each other. Currently loracarbef is the only agent in this class that is available in an oral dosage form and has been found to be comparable to oral agents in other antibiotic classes. Since the agents within this class are not indicated as first-line therapy for the management of common infectious diseases that would be seen in general use and due to concerns for the development of resistance, these agents should be managed through the medical justification portion of the prior-authorization process.

Therefore, all brand products within the class reviewed are comparable to each other and to the generics and OTC products in this class and offer no significant clinical advantage over the other alternatives in general use.

No brand single entity miscellaneous β-lactam antibiotic is recommended for preferred status. Alabama Medicaid should accept cost proposals from manufacturers to determine cost effective products and possibly designate one or more preferred brands. There were no further discussions on the drugs in this class. Chairman Geary asked the P&T Committee Members to mark their ballots.

Miscellaneous β-Lactams Combination Agents AHFS 081207
Manufacturer comments on behalf of these products:
None

Dr. Gagnon noted that the combination miscellaneous β-lactams were also last reviewed in October of 2004. Imipenem is a semisynthetic carbapenem β-lactam antibiotic and is available only as a combination product with cilastatin. Without cilastatin, imipenem is rapidly metabolized. Cilastatin itself has no antibacterial activity and does not affect the mechanism of action of imipenem. Dr. Gagnon noted that imipenem-cilastatin is available in dosage forms for intramuscular (IM) and intravenous (IV) administration, neither of which is currently on the Alabama Medicaid Preferred Drug List.

In treating the FDA-approved indications, national and international guidelines state that the combination miscellaneous β-lactams should be reserved for specific situations, such as for the treatment of severe disease, for high-risk individuals, to combat drug-resistant organisms, or in situations where prior therapies were not efficacious. The combination miscellaneous β-lactams are typically used in patients who require hospitalization and parenteral therapy.

Clinical trials evaluating the safety and efficacy of the combination miscellaneous β-lactams were presented by Dr. Gagnon. Results of these studies demonstrate comparable efficacy between imipenem-cilastatin and meropenem, a single entity miscellaneous β-lactam antibiotic, in the treatment of intra-abdominal, respiratory, skin and soft-tissue, and urinary tract infections. This combination product has also been shown to be comparable to other antibiotics both in monotherapy and in combination therapy. Solomkin et al found imipenem-cilastatin as efficacious as the combination of ciprofloxacin and metronidazole in the treatment of intra-abdominal infections.

In conclusion, the combination miscellaneous β-lactam imipenem-cilastatin contains two agents, imipenem and cilastatin. This combination product is used in the treatment of infections caused by a variety of gram-positive and gram-negative organisms. Imipenem-cilastatin is available in IM and IV dosage forms, although the IM formulation is not indicated for as many types of infections as the IV formulation.

Since these agents are not indicated as first-line therapy for the management of common infectious diseases that would be seen in general use and due to concerns for the development of resistance, these agents should be managed through the medical justification portion of the prior-authorization process.

Therefore, all brand products within the class reviewed are comparable to each other and to the generics and OTC products in this class and offer no significant clinical advantage over the other alternatives in general use.

No brand combination miscellaneous β-lactam antibiotic is recommended for preferred status. Alabama Medicaid should accept cost proposals from manufacturers to determine cost effective products and possibly designate one or more preferred brands. There were no further discussions on the drugs in this class. Chairman Geary asked the P&T Committee Members to mark their ballots.

Chloramphenicol AHFS 081208
Manufacturer comments on behalf of these products:
None

Chloramphenicol was last reviewed in October of 2004. Dr. Wenzel noted that this broad spectrum antibiotic is indicated for the treatment of severe infections including typhoid fever and other infections caused by *Haemophilus influenza*, *Rickettsia* spp., and the lymphogranuloma-psittacosis group. Its use is limited by both emerging bacterial resistance and serious adverse effects including life threatening blood dyscrasias, occasionally terminating in leukemia. The FDA has stated that chloramphenicol should only be used in patients with infections which are resistant to other, safer antibiotics or in whom safer antibiotics are not an option. Chloramphenicol is available generically and is currently on the Alabama Medicaid Preferred Drug List.

Dr. Wenzel noted that no guidelines identify chloramphenicol as a first-line agent for any indication, instead identifying it as an alternative agent when safer antibiotics cannot be used.

The adverse drug effects associated with chloramphenicol were discussed and included serious hematological adverse effects such as aplastic anemia, bone marrow suppression, granulocytopenia, and leukemia. Dr. Wenzel discussed the black box warning associated with the use of chloramphenicol which identifies the serious, potentially fatal blood dyscrasias associated with chloramphenicol and states that it should not be used for non-FDA approved indications, or when other, safer alternatives are available.

Dr. Wenzel discussed the clinical studies evaluating the efficacy of chloramphenicol and noted no statistically significant advantages of chloramphenicol compared to other, safer antibiotics for the FDA-approved indications.

In conclusion, it is important to note that current treatment guidelines do not identify chloramphenicol as a first-line agent for any indication and the FDA has stated that its use should be limited to serious infections, which may not be treated with other, safer antibiotics. Its use should be limited to in-patient settings with close hematological monitoring.

Therefore, all brand products within the class reviewed are comparable to each other and to the generics and OTC products in this class and offer no significant clinical advantage over other alternatives in general use.

No brand chloramphenicol is recommended for preferred status. Alabama Medicaid should accept cost proposals from manufacturers to determine cost effective products and possibly designate one or more preferred brands. There were no further discussions on the drugs in this class. Chairman Geary asked the P&T Committee Members to mark their ballots.

Macrolides Single Entity Agents AHFS 081212
Manufacturer comments on behalf of these products:
None

Dr. Wenzel noted that the single entity macrolide antibiotics were last reviewed in October of 2005. They are indicated to treat a wide variety of infections including upper and lower respiratory tract infections, sexually transmitted diseases, dermatologic infections, and in the prevention of disseminated *Mycobacterium avium* complex disease in patients infected with the human immunodeficiency virus (HIV). Recent safety concerns regarding the ketolide telithromycin, one of the newest agents in the class, have prompted labeling changes which were later addressed. Currently, azithromycin, clarithromycin, clarithromycin extended release (ER), and various erythromycin preparations are available generically. Zithromax®, Eryc®, E.E.S. ®, and EryPed® are the brand name products included on the Alabama Medicaid Preferred Drug List. Dynabac® has been discontinued.

National and international organizations identify macrolide antibiotics as first-line or alternative agents for the treatment of various infections. Though guidelines may identify several specific agents as first-line or alternative treatments, they generally do not identify one macrolide as being preferred over another for any indication, though the Centers for Disease Control (CDC) Sexually Transmitted Diseases (STD)

guidelines do recommend single-dose regimens for the treatment of STDs where possible to enhance compliance to therapy.

Dr. Wenzel noted that many drug-drug interactions have been associated with macrolide antibiotics and that special care should be exercised when co-administering medications with a significance level of 1, specifically in cases which may result in QT prolongation.

The text included in the black box warnings for telithromycin and erythromycin estolate were presented. Telithromycin is contraindicated in patients with myasthenia gravis, as fatal and life threatening respiratory failure has occurred with telithromycin in this patient population. Dr. Wenzel also noted that in June of 2006, the product labeling was updated to include stronger warnings regarding the risk of liver injury associated with telithromycin. Erythromycin estolate has been associated with hepatic dysfunction.

Clinical studies evaluating the efficacy of the macrolide antibiotics for their given indications were presented and did not identify clinically significant advantages of one macrolide compared to another for any indication. Dr. Wenzel noted in the "Dose Simplification" section, that while some studies showed better compliance with shorter treatment regimens and less complicated dosing schedules, there were no significant differences in efficacy or clinical outcomes as a result of improved compliance.

In conclusion, current treatment guidelines and clinical trials do not demonstrate clinically significant differences between the macrolide antibiotics for given indications. In addition, clinical trials do not seem to demonstrate improved efficacy as a result of improved compliance rates. Recent safety concerns regarding telithromycin in addition to the lack of studies showing a clear benefit of telithromycin over other macrolides highlights the uncertainty of its place in therapy.

Therefore, all brand products within the class reviewed are comparable to each other and to the generics and OTC products in this class and offer no significant clinical advantage over other alternatives in general use.

No brand single entity macrolide is recommended for preferred status. Alabama Medicaid should accept cost proposals from manufacturers to determine cost effective products and possibly designate one or more preferred brands. Telithromycin is not recommended for preferred status, regardless of cost.

Dr. Holloway asked if there was a reason why telithromycin should be covered at all due to its significant side effect profile. Ms. Littlejohn explained that Medicaid is required to cover this agent due to OBRA 90 legislation which requires access to all drugs for which there is a federal rebate. Chairman Geary then clarified that the MedMetrics' recommendation "Telithromycin is not recommended for preferred status, regardless of cost" would result in the product only being available via prior authorization. There were no further discussions on the drugs in this class. Chairman Geary asked the P&T Committee Members to mark their ballots.

Macrolides Combination Agents AHFS 081212
Manufacturer comments on behalf of these products:
None

The combination macrolide antibiotics were last reviewed in October of 2005. Dr. Wenzel noted that the only combination macrolide is erythromycin-sulfisoxazole, which is indicated to treat acute otitis media infections caused by *Haemophilus influenza* in children. It is available generically and is currently on the Alabama Medicaid Preferred Drug List.

Erythromycin-sulfisoxazole is recommended as an alternative to amoxicillin in patients who have had a type-1 IgE-mediated hypersensitivity reaction to penicillin or amoxicillin.

Clinical trials evaluating the safety and efficacy of erythromycin-sulfisoxazole were discussed and no significant differences were observed in efficacy between erythromycin-sulfisoxazole and other antibiotics studied.

In conclusion, current treatment guidelines support the use of erythromycin-sulfisoxazole in children with acute otitis media caused by *H influenza* who have experienced a type-1 hypersensitivity reaction to amoxicillin or penicillin. However, patients who have failed to respond to amoxicillin therapy within the first 72 hours should not be treated with this macrolide combination, as resistance is reported to be substantial.

Therefore, all brand products within the class reviewed are comparable to each other and to the generics and OTC products in this class and offer no significant clinical advantage over other alternatives in general use.

No brand combination macrolide is recommended for preferred status. Alabama Medicaid should accept cost proposals from manufacturers to determine cost effective products and possibly designate one or more preferred brands. There were no further discussions on the drugs in this class. Chairman Geary asked the P&T Committee Members to mark their ballots.

Penicillins Single Entity Agents AHFS 081216
Manufacturer comments on behalf of these products:
None

The single entity penicillin antibiotics were last reviewed in October of 2004. Dr. Wenzel noted that these agents are indicated to treat a wide variety of infections and have a broad spectrum of antimicrobial activity. The penicillins are classified into 4 groups: the natural penicillins, the penicillinase-resistant penicillins, the aminopenicillins, and the extended-spectrum penicillins. These classifications are based on their spectrum of activity and indications vary according to the agent. Amoxicillin, ampicillin, dicloxacillin, nafcillin, oxacillin, penicillin G, penicillin V, and piperacillin are available generically. Amoxil® and Bactocill® are the brand name products currently on the Alabama Preferred Drug List.

Current treatment guidelines addressing the use of the penicillins identify these agents as safe and effective first-line agents for many indications, despite concerns of resistance for some agents.

Dr. Wenzel noted that the majority of adverse effects associated with the single entity penicillins are gastrointestinal and dermatological in nature. The text of a black box warning for penicillin G benzathine, a natural penicillin was also discussed. The warning states that this agent is not for intravenous use, and administration in this manner may result in cardiorespiratory arrest and death.

Dr. Wenzel presented clinical trials evaluating the efficacy of these agents and noted that, in general, no significant differences in efficacy were identified between the single entity penicillins for their respective FDA-approved indications.

In conclusion, the single entity penicillins are available generically with the exception of carbenicillin, ticarcillin, and penicillin benzathine. Non-oral penicillins are not indicated as first-line therapy for common infections seen in general use; therefore, these agents should be handled through the medical justification portion of the prior-authorization process.

Therefore, all brand products within the class reviewed are comparable to each other and to the generics and OTC products in this class and offer no significant clinical advantage over other alternatives in general use.

No brand single entity penicillin is recommended for preferred status. Alabama Medicaid should accept cost proposals from manufacturers to determine cost effective products and possibly designate one or more preferred brands. There were no further discussions on the drugs in this class. Chairman Geary asked the P&T Committee Members to mark their ballots.

Penicillins Combination Agents AHFS 081216
Manufacturer comments on behalf of these products:
None

Dr. Wenzel noted that the combination penicillins were last reviewed in October of 2004. In this class of agents, the aminopenicillins and extended-spectrum penicillins are combined with a ß-lactamase inhibitor such as clavulanate (or clavulanic acid), sulbactam, or tazobactam. These ß-lactamase inhibitors bind to ß-lactamase, a bacterial enzyme which degrades the ß-lactam ring of the penicillin antibiotic. ß-lactamase inhibitors also bind to the penicillin binding proteins of the bacteria, increasing the efficacy of the antibiotic. The other combination in this class is penicillin G benzathine and penicillin procaine, 2 natural penicillins. Amoxicillin-clavulanate and ampicillin-sulbactam are available generically. Augmentin XR® is currently a brand combination penicillin on the Alabama Medicaid Preferred Drug List.

Dr. Wenzel discussed national and international organizations that identify the combination penicillins as either first- or second-line agents for various indications.

It was noted that the adverse drug events associated with the use of these agents are generally well tolerated, and the majority of adverse events are dermatological and gastrointestinal in nature.

The clinical trials evaluating the efficacy of the combination penicillins were presented. These agents are evaluated in only a few head-to-head clinical trials with other agents in this class and those trials fail to demonstrate consistently better efficacy of one agent compared to another.

In conclusion, the only oral combination penicillin available is amoxicillin-clavulanate, which is available generically in the regular-release formulation, and as a brand product in the extended-release formulation. The injectable combination penicillin products have generally been evaluated in hospitalized patients and

are not indicated as first-line therapy for common infections likely to be seen in general use. It is recommended that the injectable agents be managed through the medical justification portion of the prior-authorization process.

Therefore, all brand products within the class reviewed are comparable to each other and to the generics and OTC products in this class and offer no significant clinical advantage over other alternatives in general use.

No brand combination penicillin is recommended for preferred status. Alabama Medicaid should accept cost proposals from manufacturers to determine cost effective products and possibly designate one or more preferred brands. There were no further discussions on the drugs in this class. Chairman Geary asked the P&T Committee Members to mark their ballots.

Quinolones AHFS 081218
Manufacturer comments on behalf of these products:
Avelox® (moxifloxacin)-Schering-Plough
Cipro-XR® (ciprofloxacin)-Schering-Plough

The quinolones were last reviewed in January 2005. Dr. Gagnon noted that since the last review sparfloxacin has been discontinued. Within the quinolones, the Infectious Diseases Society of America and American Thoracic Society (IDSA/ATS) Consensus Guidelines on the Management of Community-Acquired Pneumonia in Adults designates a subclass known as the "respiratory quinolones". Though most of the quinolones are indicated to treat at least one respiratory infection, the respiratory quinolones have broader activity against organisms commonly encountered in respiratory infections. The respiratory quinolones include gemifloxacin, levofloxacin and moxifloxacin. Dr. Gagnon noted that ciprofloxacin and ofloxacin are available generically and are on the Alabama Medicaid Preferred Drug List. There are currently no brand quinolones on the Alabama Medicaid Preferred Drug List.

Current treatment guidelines addressing the use of the quinolones were presented. The quinolones are generally not recommended as first-line therapy in the treatment of common infectious diseases. The IDSA/ATS Consensus Guidelines on the Management of Community-Acquired Pneumonia in Adults published in March of 2007 was presented. This guideline states that for the outpatient treatment of previously healthy patients with no risk factors for drug resistant *Streptococcus pneumoniae* infection, a macrolide can be used and doxycycline may also be an alternate option. A respiratory fluoroquinolone is the treatment option in regions with a high rate of macrolide-resistant *S pneumoniae*, or for patients with comorbidities. Quinolones may also be used for patients who have used antimicrobials within the previous 3 months.

It was also discussed that on April 13, 2007, the Centers for Disease Control and Prevention (CDC) updated their recommendations for the treatment of gonococcal infections. The CDC no longer recommends quinolones for the treatment of gonorrhea in the US due to resistance.

Dr. Gagnon presented clinical studies evaluating the safety and efficacy of the quinolones. Of the direct-comparison trials between the quinolones, the most studied indication has been urinary tract infections (UTIs), particularly in women. For UTIs, nearly all of the trials have demonstrated that the quinolones have similar efficacies and have not found significant differences between the quinolones in clinical

success or in bacteriologic eradication rates. Studies examining the use of quinolones in dermatologic and sexually transmitted infections have also shown comparable efficacy between the quinolones studied.

Although the respiratory quinolones have broader activity against organisms commonly encountered in respiratory infections and are the quinolones recognized by guidelines for use in these situations, there is limited information demonstrating that the respiratory quinolones are more efficacious than the generic agents in this class in the treatment of respiratory infections. Salkind et al reviewed 13 trials comparing macrolides, β-lactams or doxycycline to the newer quinolones for the treatment of community-acquired pneumonia. In this analysis there was a statistically significant difference in clinical cure rates in both the intention to treat population and the evaluable population, favoring the quinolones. Dr. Gagnon noted that this meta-analysis was published in 2002 and encompassed studies from 1990-1998, and some of the quinolones included are not currently available in the US.

In conclusion, the quinolones are effective in the treatment of various infections and all quinolones share class-specific adverse reactions and drug/drug and drug/food interactions. Ciprofloxacin immediate-release tablets, suspension and injection, and ofloxacin tablets are available in generic formulations. The quinolones are generally not recommended as first-line therapy. In the treatment of common infectious diseases, direct-comparison trials between quinolones have shown the agents to be comparable to each other in terms of efficacy and direct-comparison trials between the ciprofloxacin formulations have demonstrated comparable efficacy and safety.

Therefore, all brand products within the class reviewed are comparable to each other and to the generics and OTC products in this class and offer no significant clinical advantage over other alternatives in general use.

No brand quinolone is recommended for preferred status. Alabama Medicaid should accept cost proposals from manufacturers to determine cost effective products and possibly designate one or more preferred brands.

Mr. Main inquired if there was anything in the literature regarding the treatment of methicillin-resistant *Staphylococcus aureus* (MRSA) with the quinolones. Dr. Gagnon replied that there was nothing specifically mentioned in the studies, and that since this is not an FDA-approved indication it could be managed via the medical justification process.

Chairman Geary mentioned he had spoken with various respiratory specialists and that he agrees with the preferred drug list recommendations made; however, in areas with high *S pneumoniae* resistance, guidelines do point to first-line use of the respiratory quinolones. Chairman Geary also mentioned that he has used the prior-authorization process in the past and the time required is minimal. For these reasons, he recommended that an educational communication be sent to providers regarding this specific class of drugs and the relative simplicity of the prior-authorization process when first-line use would be clinically justified. Chairman Geary also recommended revisiting clinical coverage criteria to validate consistency with the current national guidelines. Ms. Littlejohn clarified Chairman Geary's comments and confirmed that these steps could be taken with the current MedMetrics' recommendation. There were no further discussions on the drugs in this class. Chairman Geary asked the P&T Committee Members to mark their ballots.

Sulfonamides Single Entity Agents AHFS 081220
Manufacturer comments on behalf of these products:
None

The single entity sulfonamides were last reviewed in January 2005. Dr. Gagnon noted there are 3 agents in this class. All of them possess antibacterial activity, but due to an increase in resistant organisms and their side effect profiles, utilization of these agents has decreased. Sulfasalazine also has anti-inflammatory properties and is used in the management of noninfectious conditions, such as ulcerative colitis and rheumatoid arthritis. All three agents are available generically in a least one dosage form and available on the Alabama Medicaid Preferred Drug List. [The sulfisoxazole oral suspension is the only formulation that is not available generically.]

The current treatment guidelines addressing the use of the single entity sulfonamides were presented. Although the use of sulfadiazine in combination with other agents in the treatment of *Toxoplasma encephalitis* is recommended, the role of the single entity sulfonamides in the management of other infectious diseases is limited, and they are no longer recommended as first-line agents for the treatment of common conditions seen in general use. Guidelines do recommend the use of sulfasalazine in patients with mild-to-moderate ulcerative colitis and rheumatoid arthritis.

Key pivotal clinical trials for the single entity sulfonamides were presented. Few studies have evaluated the role of sulfadiazine in the treatment of toxoplasmosis and sulfisoxazole in the treatment of acute otitis media. These studies have found these agents to be effective. With regards to ulcerative colitis, several studies demonstrated that sulfasalazine was as effective, and in some cases more effective than other agents in general use in maintaining disease remission, improving symptoms, and reducing relapse rates. There are no head-to-head trials comparing agents in this class to each other.

In conclusion, the single entity sulfonamides, sulfadiazine and sulfisoxazole are FDA approved for the treatment of various bacterial infections and sulfasalazine is approved for the management of ulcerative colitis and rheumatoid arthritis. These agents are available generically in at least one dosage form. The role of the single entity sulfonamides in the management of infectious diseases is limited, and they are no longer recommended as first-line agents for the treatment of common conditions seen in general use.

Therefore, all brand products within the class are comparable to each other and to the generics and OTC products in this class and offer no significant clinical advantage over other alternatives in general use.

No brand single entity sulfonamide is recommended for preferred status. Alabama Medicaid should accept cost proposals from manufacturers to determine cost effective products and possibly designate one or more preferred brands. There were no further discussions on the drugs in this class. Chairman Geary asked the P&T Committee Members to mark their ballots.

Sulfonamides Combination Agents AHFS 081220
Manufacturer comments on behalf of these products:
None

Dr. Gagnon stated that the combination sulfonamides were also last reviewed in January 2005. This class consists of one product, a fixed-ratio combination of a sulfonamide, sulfamethoxazole (SMX), and a folic

acid antagonist, trimethoprim (TMP). These two agents work synergistically by sequentially inhibiting enzymes of the folic acid pathway, which leads to inhibition of bacterial thymidine synthesis. SMX-TMP is available generically in all dosage forms and available on the Alabama Medicaid Preferred Drug List.

National guidelines consider this combination agent as the drug of choice for both prevention and treatment of *Pneumocystis carinii* pneumonia in patients infected with human immunodeficiency virus (HIV). Guidelines also recognize the combination SMX-TMP as one of the treatments of choice for uncomplicated UTIs and exacerbations of chronic obstructive pulmonary disease (COPD). SMX-TMP is also considered a treatment option for acute otitis media in patients who are allergic to penicillins.

Key pivotal clinical trials for the combination sulfonamides were presented. Studies have shown that the combination sulfonamide is comparable in efficacy to other agents from other classes with similar FDA-approved indications. There are minimal studies comparing the combination product to single entity sulfonamides. Buckwold et al demonstrated that SMX-TMP was comparable to the single agent sulfisoxazole in the treatment of UTIs.

In conclusion, SMX-TMP is a combination antibiotic agent belonging to the sulfonamide antibacterial class and is available generically as an oral tablet, suspension, and intravenous formulation. Studies have demonstrated that the combination SMX-TMP is effective in treating patients with a variety of infections and its use is further supported by current treatment guidelines.

Therefore, all brand products within the class reviewed are comparable to each other and to the generics and OTC products in this class and offer no significant clinical advantage over other alternatives in general use.

No brand combination sulfonamide is recommended for preferred status. Alabama Medicaid should accept cost proposals from manufacturers to determine cost effective products and possibly designate one or more preferred brands.

Chairman Geary inquired about the New England Journal of Medicine article on community-acquired MRSA in dermatologic infections and wanted to insure that the clinical guidelines encompassed this indication. Dr. Gagnon responded that guidelines regarding the role of SMX-TMP in the treatment of this indication were noted in the Appendix (Pharmacologic Management of Skin & Soft Tissue Infection on page 640). Chairman Geary stated he was comfortable that this had been sufficiently addressed, and no further action was warranted.

There were no further discussions on the drugs in this class. Chairman Geary asked the P&T Committee Members to mark their ballots.

Tetracyclines AHFS 081224
Manufacturer comments on behalf of these products:
None

Dr. Ferris stated that the tetracyclines have a wide-spectrum of activity and are effective against both gram-positive and gram-negative bacteria, and other organisms. These agents were previously reviewed in October of 2004. Since the previous review, the most significant change has been the addition of the

tigecycline injection to the market. Tigecycline is a derivative of minocycline and has shown activity against tetracycline-resistant pathogens. It is considered a third generation tetracycline. All of the oral tetracyclines are available generically in at least one dosage form, and doxycycline is available generically by injection.

The national and international organizations identify tetracyclines as first-line or alternative agents for the treatment of various infections. Doxycycline and tetracycline are the tetracyclines most frequently recommended in these guidelines. Tigecycline is only indicated for the treatment of skin, soft tissue and intra-abdominal infections.

In addition to the drug interactions, food and some dairy products interfere with the absorption of several tetracycline agents including demeclocycline, doxycycline and tetracycline. Use of tetracyclines during the period of tooth development (from the last half of pregnancy through 8 years of age) may cause permanent discoloration of teeth; therefore, the tetracyclines should not be used in children under eight years of age (except for the treatment and postexposure prophylaxis of anthrax), unless other drugs are not likely to be effective or are contraindicated. Tigecycline is not recommended for patients less than 18 years of age.

Dr. Ferris mentioned two studies that evaluated the efficacy of tigecycline for the treatment of complicated infections. In both studies, tigecycline demonstrated similar efficacy to the comparator drug, but more patients reported nausea and vomiting with tigecycline.

In conclusion, the tetracyclines have a wide-spectrum of activity and play an essential role in the treatment of certain infectious diseases such as Lyme disease, sexually transmitted diseases and diseases from agents of biological warfare. This class also provides an effective alternative antibiotic in the treatment of respiratory, skin and soft tissue infections and for *Helicobacter pylori* eradication. National treatment guidelines support the use of these agents for those infections. There is a generic tetracycline formulation available for each of these indications.

Therefore, all brand products within the class reviewed are comparable to each other and to the generics and OTC products in this class and offer no significant clinical advantage over other alternatives in general use.

No brand tetracycline is recommended for preferred status. Alabama Medicaid should accept cost proposals from manufacturers to determine cost effective products and possibly designate one or more preferred brands. Since there were no further discussions, Chairman Geary asked the P&T Committee Members to mark their ballots.

Antibacterials, Miscellaneous Single Entity Agents AHFS 081228
Manufacturer comments on behalf of these products:
None

Dr. Ferris pointed out that the single entity miscellaneous antibacterials were last reviewed in January of 2005. Since the previous review, some products and/or formulations are no longer available, such as lincomycin oral capsules and vancomycin oral solution. There are no significant additions to this class. This therapeutic class encompasses both IV and oral agents. Of the products that are available orally,

clindamycin capsules are available generically. Several of the injectable products, such as clindamycin and vancomycin, are available generically.

In general, the use of these agents is limited to serious infections and/or those caused by resistant organisms, such as *S aureus* and *Enterococcus faecium*. The FDA-approved indications for vancomycin injection are different than those for the oral capsules since vancomycin is poorly absorbed by the oral route. Clindamycin, lincomycin, bacitracin and polymyxin B carry black box warnings. The outcomes of the clinical trials support the current treatment guidelines for the role of these agents in the management of serious infections and/or those caused by resistant organisms.

In conclusion, the drugs in this class are used primarily for hospitalized patients with serious infections, or are indicated for limited use in specific infectious diseases or circumstances. Clindamycin is available generically in oral (capsule only) and injectable formulations. Several other miscellaneous antibacterials, such as vancomycin injection, are available generically.

Since the miscellaneous antibacterial agents are not indicated as first-line therapy for the management of common infectious diseases that would be seen in general use and due to concerns for the development of resistance, therapies with no generic alternative should be managed through the medical justification portion of the prior-authorization process.

Therefore, all brand products within the class reviewed are comparable to each other and to the generics and OTC products in this class and offer no significant clinical advantage over other alternatives in general use.

No brand single entity miscellaneous antibacterial is recommended for preferred status. Alabama Medicaid should accept cost proposals from manufacturers to determine cost effective products and possibly designate one or more preferred brands. Since there were no further discussions, Chairman Geary asked the P&T Committee Members to mark their ballots.

Antibacterials, Miscellaneous Combination Agents AHFS 081228
Manufacturer comments on behalf of these products:
None

Dr. Ferris pointed out that there are 2 combination products in this review. Since the previous review in January of 2005, there have been no significant changes to the products listed in this class. Helidac® is an oral prepackaged formulation of bismuth subsalicylate tablets, metronidazole tablets, and tetracycline capsules. While the combination product Helidac® is not available generically, all of the components within the package are available individually as generic drugs. Quinupristin and dalfopristin (Synercid®) is an injectable product, used primarily in an institutional setting. The components of Synercid® are not commercially available as individual entities nor are they available generically. Neither of these combination products is currently on the Alabama Medicaid Preferred Drug List.

Helidac® is FDA approved for the eradication of *H pylori* in combination with a histamine H_2-antagonist. While this specific combination is not among the guidelines, the American Gastroenterological Association (2005) considers quadruple therapy with a proton-pump inhibitor (PPI), bismuth, metronidazole and tetracycline as achieving one of the highest *H pylori* eradication rates, along with two

other triple therapy regimens. More recently, guidelines by the European *H pylori* Study Group consider triple therapy as first-line treatment for the eradication of *H pylori* and quadruple therapy as second-line treatment.

The role of quinupristin-dalfopristin is limited to the treatment of highly resistant microorganisms. Quinupristin-dalfopristin is FDA approved for the treatment of vancomycin-resistant *E faecium* (VREF) and for the treatment of complicated skin and soft-tissue infections caused by *S aureus* or *Streptococcus pyogenes*. Both of these combination products carry black box warnings. The black box warning for Synercid® outlines the conditions under which this agent received FDA approval for the treatment of patients with serious or life-threatening infections associated with VREF bacteremia.

Clinical trials with these agents were discussed. Quadruple therapy with bismuth, metronidazole, tetracycline and a histamine H_2-antagonist or a PPI were shown to be comparable in efficacy to triple therapy. Clinical studies reported that quinupristin-dalfopristin was comparable in efficacy to linezolid for VREF infections. Regarding complicated skin and soft-tissue infections, clinical success rates in patients treated with quinupristin-dalfopristin were comparable to oxacillin, cefazolin and vancomycin. Patients receiving quinupristin-dalfopristin experienced more side effects than patients on the comparator agent.

In conclusion, this review covers two combination products in the antibacterials, miscellaneous class. Based upon the information summarized in the review and presented today, the brand prepackaged product of bismuth subsalicylate, metronidazole and tetracycline offers no significant clinical advantage over the administration of the components in individual prescriptions. Since quinupristin-dalfopristin is not indicated as first-line therapy for the management of common infectious diseases that would be seen in general use, and due to concerns for the development of resistance, this agent should be managed through the medical justification portion of the prior-authorization process.

Therefore, all brand products within the class reviewed are comparable to each other and to the generics and OTC products in this class and offer no significant clinical advantage over other alternatives in general use.

No brand combination miscellaneous antibacterial is recommended for preferred status. Alabama Medicaid should accept cost proposals from manufacturers to determine cost effective products and possibly designate one or more preferred brands.

Mr. Main asked Chairman Geary if the lack of eradication with *H pylori* treatment regimens was due to the three or four time daily treatment regimens leading to poor compliance. Mr. Main stated he assumed it was due to poor compliance and asked if therapy is repeated and the patient is not compliant again what would be the next step. Chairman Geary was unable to answer the question. Dr. Ferris stated that the European *H Pylori* Study Group published in 2007 recommends "simple" treatment regimens and triple therapy as first line and more complicated quadruple therapy as second-line treatment options. Since there were no further discussion, Chairman Geary asked the P&T Committee Members to mark their ballots.

6. NEW DRUG REVIEWS

Daytrana® (methylphenidate transdermal system) AHFS 282004 Amphetamines

Manufacturer comments on behalf of this product:

Daytrana® (methylphenidate transdermal system)-Shire US Inc.

Dr. Ferris noted that the cerebral stimulants and agents used for the treatment of attention-deficit hyperactivity disorder (ADHD) were previously reviewed in December of 2005. Transdermal methylphenidate is a new long-acting methylphenidate formulation and the first transdermal medication FDA-approved for the treatment of ADHD. There are no generics available for this product; however, there are generic formulations for other methylphenidate products. Regarding the long-acting stimulants, there are 4 brands with preferred status on the Alabama Medicaid Preferred Drug List: Adderall XR®, Concerta®, Focalin XR® and Metadate CD®. The cerebral stimulants are considered first-line therapy for most patients with ADHD.

Since the onset of action with the methylphenidate transdermal system is 2 hours, the system should be applied to the skin 2 hours before the therapeutic effect is needed. The recommended application time is 9 hours per day. Use of the patch greater than 9 hours per day may result in an increased exposure to methylphenidate and an increased incidence of adverse events. Once the patch is removed, methylphenidate plasma concentrations persist and decline biexponentially with a half-life of 3-4 hours. The total dose delivered is dependent on the patch size and wear time.

The majority of treatment-emergent events reported with transdermal methylphenidate are similar to those reported with other methylphenidate formulations. However, preliminary studies suggest the incidence of insomnia, decreased appetite, and tics are significantly higher with transdermal methylphenidate compared to other methylphenidate formulations. At this time, the full results of this study have not been published in the peer-reviewed literature. Unlike conventional oral methylphenidate, transdermal methylphenidate may result in contact sensitization. According to the manufacturer, it is possible that patients sensitized to transdermal methylphenidate may not be able to take methylphenidate in any form. The methylphenidate transdermal system also carries a black box warning regarding drug dependence and should be given cautiously to patients with a history of drug dependence or alcoholism.

While transdermal methylphenidate has only been studied in children aged 6-12 years, the FDA does not restrict use of this product to this age group. The manufacturer only lists one dosage regimen in their product labeling and this was based on studies in children. Safety and efficacy of this product in children less than 6 years of age have not been established.

There are three published clinical studies evaluating the safety and efficacy of the methylphenidate transdermal system in patients with ADHD. McGough et al reported that the methylphenidate transdermal system significantly improved rating scales of ADHD symptoms compared to placebo. The other two published studies evaluated different doses of the methylphenidate transdermal system. There are currently no published studies comparing methylphenidate transdermal to other methylphenidate formulations. The study that the speaker mentioned that compared methylphenidate transdermal system to Concerta® has not yet been published in peer-reviewed literature.

In conclusion, the transdermal methylphenidate is a long-acting methylphenidate formulation that is indicated for the treatment of ADHD. Preliminary data suggests a higher incidence of some side effects with the transdermal formulation of methylphenidate compared to the oral formulation. In addition, transdermal methylphenidate has the unique side effect of contact sensitization that has not been reported with oral stimulants that may preclude future use of any methylphenidate formulation. Treatment considerations associated with transdermal methylphenidate are noted in the review.

Published clinical studies evaluating the use of transdermal methylphenidate have only been conducted in children between the ages of 6-12 years old. The efficacy of this medication is unknown in the adult population. In addition, there are no published head-to-head clinical trials involving transdermal methylphenidate. The three studies in publication are very short in duration, up to 7 weeks, and compare transdermal methylphenidate to placebo or behavior modification. Conversely, oral methylphenidate has been studied since the 1960's resulting in extensive history of safety and efficacy data.

Therefore, since transdermal methylphenidate has not been evaluated against other long-acting methylphenidate formulations, is not specifically addressed in treatment guidelines, and is associated with an increased incidence of treatment emergent-adverse events and contact sensitization that has not been reported with oral stimulants, it is advisable that these agents be managed through the existing medical justification portion of the prior-authorization process.

No brand transdermal methylphenidate (Daytrana®) is recommended for preferred status. Alabama Medicaid should accept cost proposals from manufacturers to determine cost effective products and possibly designate one or more preferred brands. Since there were no further questions, Chairman Geary asked the P&T Committee Members to mark their ballots.

7. RESULTS OF VOTING ANNOUNCED

Ms. Littlejohn announced the results of voting for each of the therapeutic classes and new drugs. Results of voting are described in the Appendix to the minutes.

8. NEW BUSINESS

There was no new business.

9. NEXT MEETING DATE

The next P&T Committee Meeting is scheduled for August 22, 2007.

10. ADJOURN

Chairman Geary adjourned the meeting at 11:30 a.m. and thanked everyone.

Appendix

RESULTS OF THE BALLOTING
Alabama Medicaid Agency
Pharmacy and Therapeutics Committee
May 9, 2007

A. **Recommendation**: No brand anthelmintic is recommended for preferred status. Alabama Medicaid should accept cost proposals from manufacturers to determine cost effective products and possibly designate one or more preferred brands.

Amendment: None

Vote: Unanimous to approve as recommended

Deputy Commissioner — (Approve) Approve as amended Disapprove No action

Commissioner — (Approve) Approve as amended Disapprove No action

B. **Recommendation**: No brand aminoglycoside is recommended for preferred status. Alabama Medicaid should accept cost proposals from manufacturers to determine cost effective products and possibly designate one or more preferred brands.

Amendment: None

Vote: Unanimous to approve as recommended

Deputy Commissioner — (Approve) Approve as amended Disapprove No action

Commissioner — (Approve) Approve as amended Disapprove No action

C. **Recommendation**: No brand cephalosporin is recommended for preferred status. Alabama Medicaid should accept cost proposals from manufacturers to determine cost effective products and possibly designate one or more preferred brands.

Amendment: None

Vote: Unanimous to approve as recommended

Deputy Commissioner — Approve | Approve as amended | Disapprove | No action

Commissioner — Approve | Approve as amended | Disapprove | No action

D. **Recommendation**: No brand single entity miscellaneous β-lactam antibiotic is recommended for preferred status. Alabama Medicaid should accept cost proposals from manufacturers to determine cost effective products and possibly designate one or more preferred brands.

Amendment: None

Vote: Unanimous to approve as recommended

Deputy Commissioner — Approve | Approve as amended | Disapprove | No action

Commissioner — Approve | Approve as amended | Disapprove | No action

E. **Recommendation**: No brand combination miscellaneous β-lactam antibiotic is recommended for preferred status. Alabama Medicaid should accept cost proposals from manufacturers to determine cost effective products and possibly designate one or more preferred brands.

Amendment: None

Vote: Unanimous to approve as recommended

Deputy Commissioner — Approve | Approve as amended | Disapprove | No action

Commissioner — Approve | Approve as amended | Disapprove | No action

F. **Recommendation**: No brand chloramphenicol is recommended for preferred status. Alabama Medicaid should accept cost proposals from manufacturers to determine cost effective products and possibly designate one or more preferred brands.

Amendment: None

Vote: Unanimous to approve as recommended

Kathy Hall — Deputy Commissioner — (Approve) Approve as amended Disapprove No action

Commissioner — (Approve) Approve as amended Disapprove No action

G. **Recommendation**: No brand single entity macrolide is recommended for preferred status. Alabama Medicaid should accept cost proposals from manufacturers to determine cost effective products and possibly designate one or more preferred brands.
Telithromycin is not recommended for preferred status, regardless of cost.

Amendment: None

Vote: Unanimous to approve as recommended

Kathy Hall — Deputy Commissioner — (Approve) Approve as amended Disapprove No action

Commissioner — (Approve) Approve as amended Disapprove No action

H. **Recommendation**: No brand combination macrolide is recommended for preferred status. Alabama Medicaid should accept cost proposals from manufacturers to determine cost effective products and possibly designate one or more preferred brands.

Amendment: None

Vote: Unanimous to approve as recommended

Kathy Hall — Deputy Commissioner — (Approve) Approve as amended Disapprove No action

Commissioner — (Approve) Approve as amended Disapprove No action

I. **Recommendation**: No brand single entity penicillin is recommended for preferred status. Alabama Medicaid should accept cost proposals from manufacturers to determine cost effective products and possibly designate one or more preferred brands.

Amendment: None

Vote: Unanimous to approve as recommended

Kathy Hall — (Approve) Approve as amended Disapprove No action
Deputy Commissioner

Chris — (Approve) Approve as amended Disapprove No action
Commissioner

J. **Recommendation**: No brand combination penicillin is recommended for preferred status. Alabama Medicaid should accept cost proposals from manufacturers to determine cost effective products and possibly designate one or more preferred brands.

Amendment: None

Vote: Unanimous to approve as recommended

Kathy Hall — (Approve) Approve as amended Disapprove No action
Deputy Commissioner

Chris — (Approve) Approve as amended Disapprove No action
Commissioner

K. **Recommendation**: No brand quinolone is recommended for preferred status. Alabama Medicaid should accept cost proposals from manufacturers to determine cost effective products and possibly designate one or more preferred brands.

Amendment: None

Vote: Unanimous to approve as recommended

Kathy Hall — (Approve) Approve as amended Disapprove No action
Deputy Commissioner

Chris — (Approve) Approve as amended Disapprove No action
Commissioner

L. **Recommendation**: No brand single entity sulfonamide is recommended for preferred status. Alabama Medicaid should accept cost proposals from manufacturers to determine cost effective products and possibly designate one or more preferred brands.

Amendment: None

Vote: Unanimous to approve as recommended

Kathy Hall — Deputy Commissioner — (Approve) Approve as amended Disapprove No action

Curtis — Commissioner — (Approve) Approve as amended Disapprove No action

M. **Recommendation**: No brand combination sulfonamide is recommended for preferred status. Alabama Medicaid should accept cost proposals from manufacturers to determine cost effective products and possibly designate one or more preferred brands.

Amendment: None

Vote: Unanimous to approve as recommended

Kathy Hall — Deputy Commissioner — (Approve) Approve as amended Disapprove No action

Curtis — Commissioner — (Approve) Approve as amended Disapprove No action

N. **Recommendation**: No brand tetracycline is recommended for preferred status. Alabama Medicaid should accept cost proposals from manufacturers to determine cost effective products and possibly designate one or more preferred brands.

Amendment: None

Vote: Unanimous to approve as recommended

Kathy Hall — Deputy Commissioner — (Approve) Approve as amended Disapprove No action

Curtis — Commissioner — (Approve) Approve as amended Disapprove No action

O. **Recommendation**: No brand single entity miscellaneous antibacterial is recommended for preferred status. Alabama Medicaid should accept cost proposals from manufacturers to determine cost effective products and possibly designate one or more preferred brands.

Amendment: None

Vote: Unanimous to approve as recommended

Kathy Hall — Deputy Commissioner — (Approve) Approve as amended Disapprove No action

Clutts — Commissioner — Approve (Approve as amended) Disapprove No action

P. **Recommendation**: No brand combination miscellaneous antibacterial is recommended for preferred status. Alabama Medicaid should accept cost proposals from manufacturers to determine cost effective products and possibly designate one or more preferred brands.

Amendment: None

Vote: Unanimous to approve as recommended

Kathy Hall — Deputy Commissioner — (Approve) Approve as amended Disapprove No action

Clutts — Commissioner — (Approve) Approve as amended Disapprove No action

Q. **Recommendation**: No brand transdermal methylphenidate (Daytrana®) is recommended for preferred status. Alabama Medicaid should accept cost proposals from manufacturers to determine cost effective products and possibly designate one or more preferred brands.

Amendment: None

Vote: Unanimous to approve as recommended

Kathy Hall — Deputy Commissioner — (Approve) Approve as amended Disapprove No action

Clutts — Commissioner — (Approve) Approve as amended Disapprove No action

Respectfully submitted,

05/15/07

James Gagnon, Pharm.D. Date